

Two new species of the Neotropical genus *Oukuriella* Epler, 1986

(Insecta, Diptera, Chironomidae)

Maria Conceição Messias and Ernst Josef Fittkau

Messias, M. C. & E.-J. Fittkau (1997): Two new species of the Neotropical genus *Oukuriella* Epler, 1986 (Insecta, Diptera, Chironomidae). – *Spixiana* 20/3: 255-260

The males of two new species of *Oukuriella* Epler, 1986 are described from Brazil: *Oukuriella oliveirai*, spec. nov. and *Oukuriella epleri*, spec. nov. *Oukuriella oliveirai*, spec. nov. is similar to *Oukuriella albistyla* Epler, 1986, but can be separated by the more slender superior volsella and fewer dorsocentral setae. *Oukuriella epleri*, spec. nov. is distinguished from other species by possessing setal tufts on the abdominal segments, a well developed median notch in the posterior margin of T IX, and wings with markings.

Maria Conceição Messias, Núcleo de Chironomidae, Coleção Entomológica, Departamento de Entomologia, Instituto Oswaldo Cruz, IOC-FIOCRUZ, Rio de Janeiro, Brazil & c/o Zoologische Staatssammlung, Münchhausenstr. 21, D-81247 München, Germany.

Prof. Dr. Ernst Josef Fittkau, c/o Zoologische Staatssammlung, Münchhausenstr. 21, D-81247 München, Germany.

Introduction

Epler (1986) established the genus *Oukuriella* on the basis of specimens from Brazil, Colombia, and Uruguay. Until now, six species have been described (Epler 1986, 1996, Spies & Reiss 1996). In the collection of the Zoologische Staatssammlung München, there are several new species, two of which are here described. A key is provided to separate the known species.

Methodology

Morphological terminology and abbreviations follow Saether (1980). All measurements follow Epler (1988) unless otherwise stated. Values are given in μm and, in parentheses, with the number of the specimens utilized if different from the number cited at the beginning of the description. Abbreviations used: INPA: Instituto Nacional de Pesquisas da Amazônia, Manaus, Amazonas; IOC: Instituto Oswaldo Cruz, Rio de Janeiro, Brazil; FIOCRUZ: Fundação Oswaldo Cruz, Rio de Janeiro, Brazil; ZSM: Zoologische Staatssammlung, Munich, Germany.

Key to adult males of *Oukuriella*

1. Abdomen light brown, with darker brown transverse bands on some tergites 3.
- Abdomen brown, without transverse bands of darker color 2.

- 2. Tergites with setal tufts *Oukuriella epleri*, spec. nov. 4.
- Tergites without setal tufts 4.
- 3. Tergites III, IV, VI, and VII with transverse bands *O. annamae* Epler
- Only tergites IV and VI with transverse bands *O. fasciata* Epler
- 4. AR less than 0.50; T IX without posterior median notch *O. costaricensis* Epler
- AR greater than 1.00; T IX with median notch 5.
- 5. Femora and tibiae without darkened apices 6.
- Anterior femur and tibia with darkened apices 7.
- 6. Superior volsella with upper arm longer than digitus, and with rounded apex; inferior volsella with 11-14 sensilla chaetica *O. albistyla* Epler
- Superior volsella slender, digitus about as long as upper arm; inferior volsella with 10-12 sensilla chaetica *O. oliveirai*, spec. nov.
- 7. Superior volsella with 8 sensilla chaetica near bend of upper arm; inferior volsella with 16 dorsal sensilla chaetica *O. russhi* Epler
- Superior volsella with 2-3 sensilla chaetica near bend of upper arm; inferior volsella with 9-11 dorsal sensilla chaetica *O. simulatrix* Epler

Oukuriella oliveirai, spec. nov.

Fig. 1

Types. Holotype: ♂ imago, slide-mounted in Canada Balsam, Brazil, Pará, Rio Cururu, at light 6/2/61, leg E. J. Fittkau (to be deposited at INPA). – Paratypes: 2♂♂, 16/1/61; 1♂, 6/2/61; 13♂♂, 19/1/61, Brazil, Pará, Rio Cururu, leg. E. J. Fittkau, at light, slide-mounted in Canada Balsam (IOC, ZSM).

Diagnosis. *Oukuriella oliveirai* is distinguished by the slender superior volsella, posterior margin of T IX, and the low number of dorsocentral setae.

Imago ♂ (n=17)

Colour (slide-mounted specimens). Head, thorax and abdomen brownish. Wing mostly clear with a light brown tinge, veins light brown.

Head (Fig. 1a). Temporals 10-12. Clypeus with 12-14 setae. Palpomere lengths (n=14) 23-29; 34; 88-93; 107-112; 166-176. AR (n=8) 1.23-1.40.

Thorax (Fig. 1b). Acrostichals 5; dorsocentrals 5-7; scutellars 4; prealars 1.

Wing. Length (n=9) 1.42-1.55 mm. VR: 0.73-0.80. R with 9 setae. R₄₊₅ with 15-20 setae.

Legs. Segment lengths and proportions :

	p ₁ (11)	p ₂ (12)	p ₃ (12)
fe	912- 988 (15)	912-950	931-988
ti	570- 646 (15)	722-760	741-798
ta ₁	988-1083	456-627	475-608 (11)
ta ₂	741- 798	190-380	228-494
ta ₃	456- 532	152-222	152-304
ta ₄	380- 418	95-190	95-190
ta ₅	133- 171	57	76
LR	1.68	0.62	0.74 (10)
BV	1.45	3.71 (9)	3.24 (11)
SV	1.50	3.37 (9)	3.36 (11)

Abdomen (Figs 1c-d). Segments I-VII with 7 pairs of lateral setae, 11 dorsal and 9 ventral setae; Segment VIII with approximately 20 dorsal setae, 4 lateral setae and 1 ventral tuft with 18 setae.

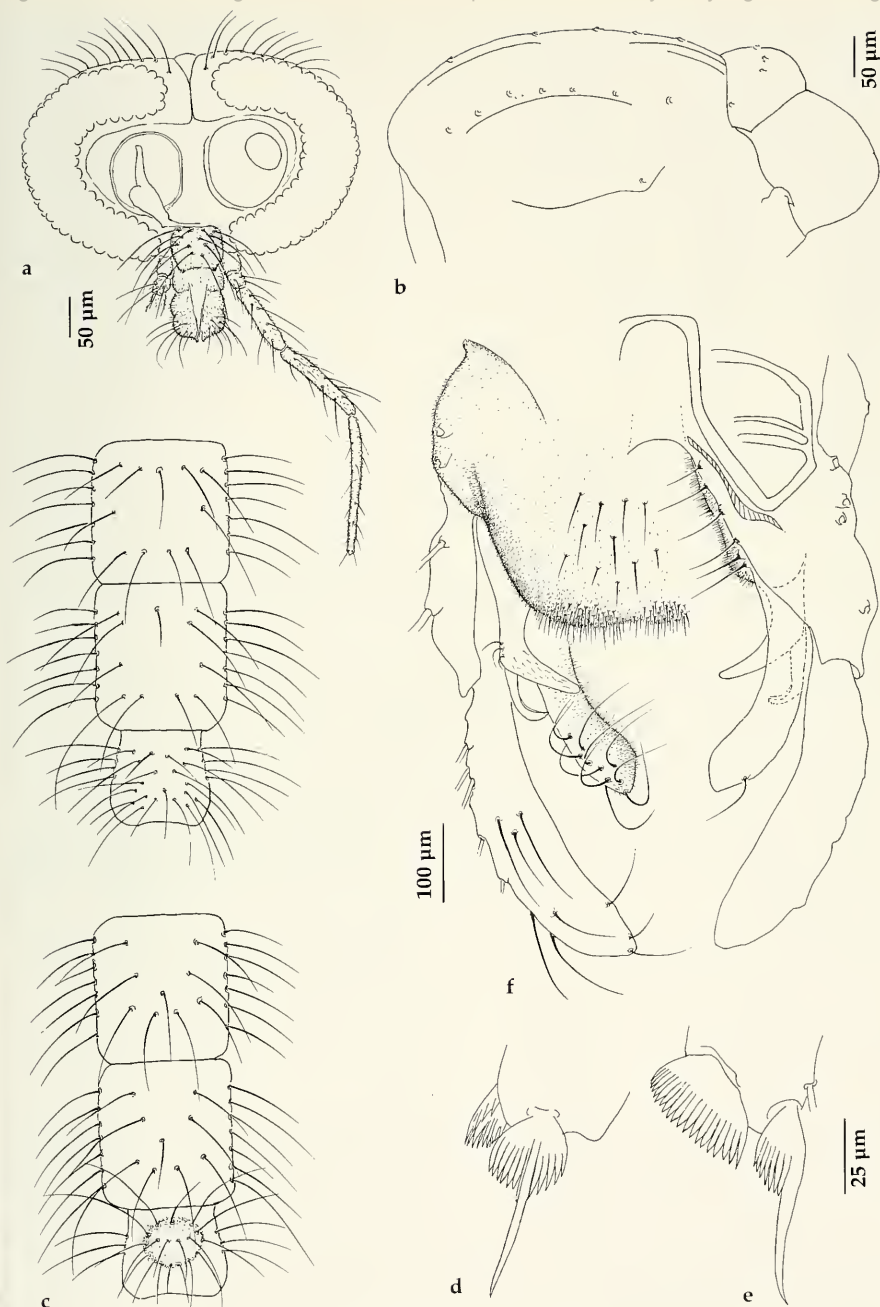


Fig. 1. *Oukuriella oliveirai*, spec. nov. a. Head, frontal view. b. Thorax. c. Abdomen, segments VI–VIII, dorsal/ventral. d. Mid tibial apex. e. Hind tibial apex. f. Hypopygium.

Hypopygium (Fig. 1f). Posterior margin of T IX with weak median notch. Superior volsella with 3-4 sensilla chaetica laterally at the bend of the upper arm, digitus slender, approximately equivalent in length to upper arm, and posteriorly directed. Inferior volsella with 9-11 apical, dorsal sensilla chaetica, and 1 ventral sensillum chaeticum.

Remarks. The hypopygium of this species is somewhat similar to *Oukuriella albistyla* Epler. However, *Oukuriella oliveirai* lacks humeral setae, has 5-7 dorsocentral and 4 scutellar setae, the superior volsella is slender, with 3-4 sensilla chaetica near the bend of the upper arm.

Etymology. Named in honour of Prof. Sebastião José de Oliveira, Curator of the Coleção Entomológica do Instituto Oswaldo Cruz, Departamento de Entomologia-FIOCRUZ, who has contributed much to the knowledge of Neotropical Chironomidae and to the entomology in general. The first author would like to especially thank Prof. Oliveira for his support and encouragement as supervisor. His expertise, patience and not least friendship has inspired M. C. Messias with her work on Chironomidae.

Oukuriella epleri, spec. nov.

Figs 2, 3

Types. Holotype: ♂, slide-mounted in Canada Balsam, Brazil, Pará, Rio Cururu, at light 6/2/61, leg. E. J. Fittkau, to be deposited at INPA. – Paratypes: 1♂, Brazil, Pará, Rio Tocantins, 6/11/60; 1♂, Brazil, Amazonas, Rio Branquinho, 23/7/61; 1♂, Brazil, Amazonas, Rio Solimões, 12/9/61; 1♂, Brazil, Amazonas, Rio Preto, Brazil, 7/7/62, leg E. J. Fittkau, at light, slide-mounted in Canada Balsam or Euparal (FIOCRUZ, IOC, ZSM).

Diagnosis. *Oukuriella epleri* is distinguished by the clypeus with 44-50 setae, scutum with strong tubercle with 3-4 setae, wing with brown markings, abdominal tergites with setal tufts, posterior margin of T IX with well developed median notch, and the slender gonostylus.

Imago ♂ (n = 5)

Colour (slide mounted specimens). Head, thorax and abdomen brown. Wing with mostly elongate, brown markings (Fig. 2c). Legs stramineous with faint brownish rings.

Head (Fig. 2a). Temporals 5. Clypeus with 44-50 setae.

Thorax (Fig. 2b). Scutum with strong central tubercle. Acrostichals 5, dorsocentrals 7-10, humeral 1, scutellars 4-7, prealars 2-3.

Wing (Fig. 2c). With markings in cells r_{2+3} , r_{4+5} , m_{3+4} , cu, and an.

Length. 1.71-1.90 mm. VR: 0.77-1.26. R with 18-21, R_1 with 12-15, R_{4+5} with 15-24 setae.

Legs (Fig. 3d-e). All legs densely setose, with brownish rings on basal $\frac{3}{5}$ and apex of femora, base and apex of tibiae, middle and apex of fore and mid ta_1 , base and apex of hind ta_1 , and apices of ta_2 - ta_5 .

Segments lengths and proportions of legs:

	P ₁ (3)	P ₂	P ₃
fe	1235-1425 (4)	1159-1254 (2)	1164-1311
ti	608- 741	660- 836	665- 874
ta ₁	1330-1482	570- 703	627- 779
ta ₂	950-1140	266- 456	399- 551
ta ₃	570- 684 (4)	190- 380 (4)	323- 361
ta ₄	475- 532	95- 228 (4)	190- 228
ta ₅	190- 247	76- 95 (4)	76- 114
LR	2.08	0.78	0.88
BV	2.09 (2)	4 (1)	2.36 (3)
SV	1.44	3.68 (2)	2.95 (3)

Abdomen (Figs 3a-b). Segments I-VII with 8 pairs of lateral setae, 10 dorsal and 28 ventral setae; T II-VII each with 2 setal tufts; segment VIII with approximately 14 dorsal setae, 8 laterally setae and 1 ventral tuft with approximately 30 setae.

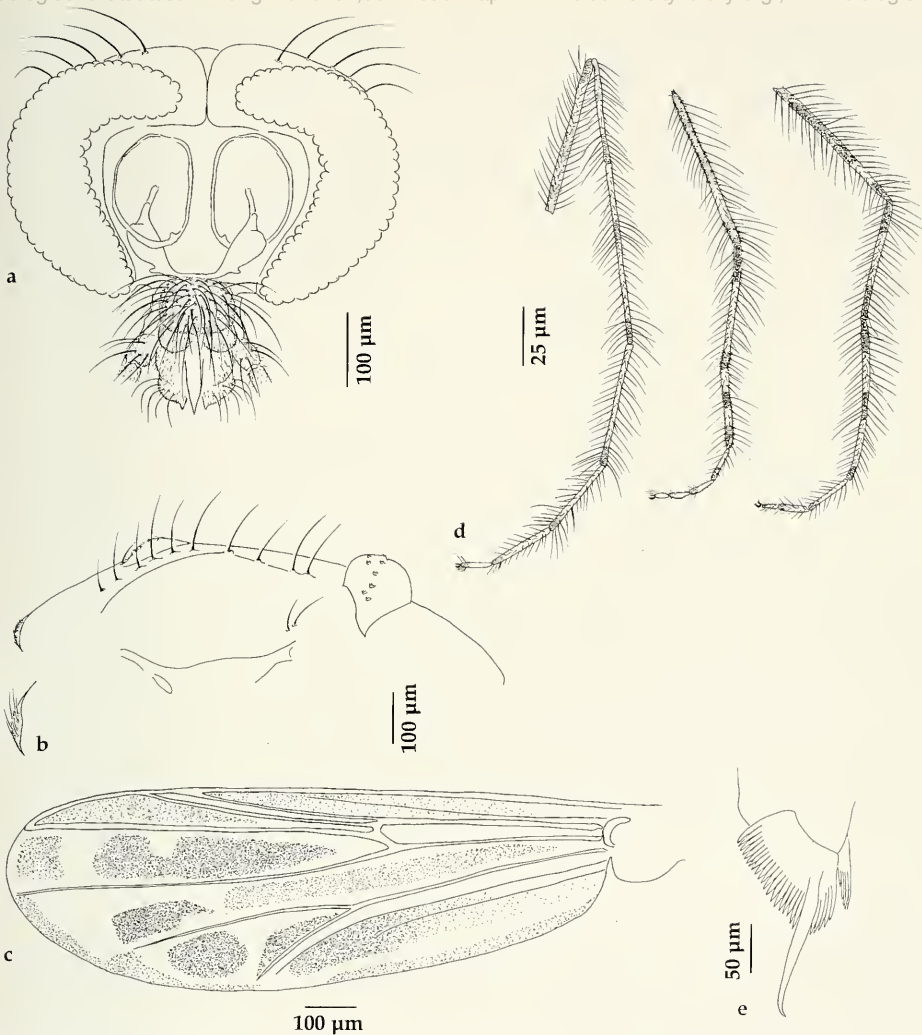


Fig. 2. *Oukuriella epleri*, spec. nov. a. Head, frontal view. b. Thorax c. Wing. d. Legs. e. Hind tibial apex.

Hypopygium (Fig. 3c). Posterior margin of T IX with 36-40 setae and well developed median notch. Gonostylus slender. Superior volsella with 8-10 sensilla chaetica near bend of upper arm. Inferior volsella with 10-12, dorsal sensilla chaetica, and with ventral sensillum chaeticum.

Etymology. Named after Dr. J. H. Epler, the author of the genus *Oukuriella*, in honour of his contributions to the study of the Chironomidae.

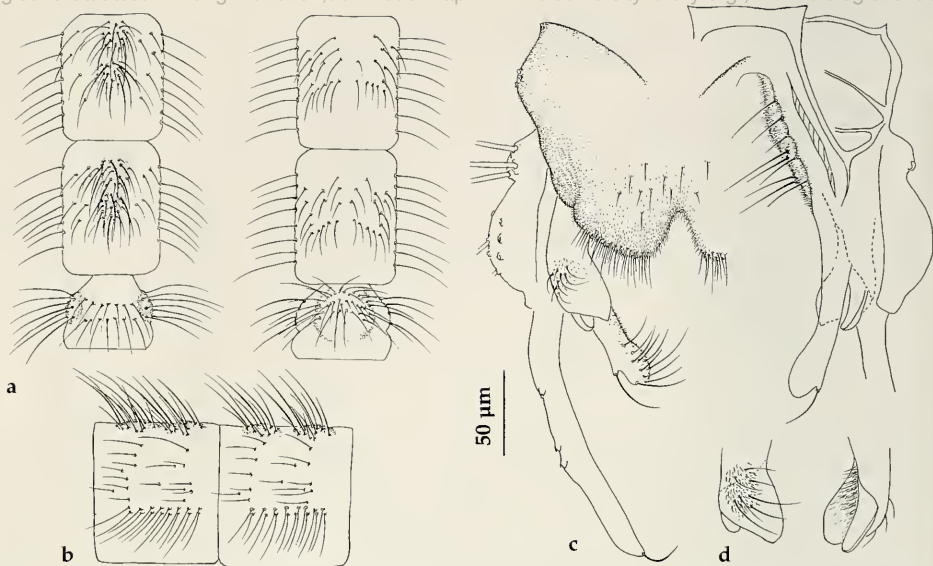


Fig. 3. *Okuriella epleri*, spec. nov. a. Abdomen, segments VI-VIII, dorsal/ventral. b. Abdomen, segments IV-V, lateral view. c. Hypopygium. d. Superior volsella, dorsal/ventral.

Resumo

Descrive-se a partir de espécimens machos: *Okuriella oliveirai*, spec. nov. e *Okuriella epleri*, spec. nov. *Okuriella oliveirai*, spec. nov. assemelha-se à *Okuriella albistyla* Epler, 1986, mas desta se diferencia por possuir a volsella superior mais estreita e um menor número de cerdas dorsocentrais. *Okuriella epleri*, spec. nov. difere de todas as outras espécies do gênero, por possuir tergitos com tufos de cerdas, a margem posterior do T IX com uma reentrância bem desenvolvida e asas manchadas.

Acknowledgments

We would like to thank Dr. F. Reiss (München) for his constant readiness to help, and for valuable discussions. We would also like to thank Mr. M. Spies (München) for correcting the English, and for comments on an earlier draft of this paper. This publication is a part of the first author's ongoing Ph.D. thesis at the Instituto Oswaldo Cruz in Rio de Janeiro, Brazil, prepared as a Doctoral Program in Cooperation ("Sandwich" Program) of the DAAD (Deutscher Akademischer Austauschdienst).

References

- Epler, J. H. 1986. *Okuriella*, a new genus of Chironomidae (Diptera) from South America. – Ent. scand. 17: 157-163
 – 1988. Biosystematics of the genus *Dicrotendipes* Kieffer, 1913 (Diptera: Chironomidae) of the world. – Mem. Amer. ent. Soc. 36: 1-214
 – 1996. New species of *Okuriella* (Diptera: Chironomidae) from Costa Rica. – Hydrobiologia 318: 3-11
 Saether, O. A. 1988. Glossary of chironomid morphology terminology (Diptera: Chironomidae). – Ent. scand. Suppl. 14: 1-51
 Spies, M. & F. Reiss. 1996. Catalog and bibliography of Neotropical and Mexican Chironomidae (Insecta, Diptera). – Spixiana Suppl. 22: 61-119

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Spixiana, Zeitschrift für Zoologie](#)

Jahr/Year: 1997

Band/Volume: [020](#)

Autor(en)/Author(s): Messias Maria Conceicao, Fittkau Ernst Josef

Artikel/Article: [Two new species of the Neotropical genus Oukuriella Epler, 1986 \(Insecta, Diptera, Chironomidae\) 255-260](#)